REMARKS

In the Office Action dated February 10, 2004, claims 1-20 are pending. Claims 1, 11, 16, and 19 are independent claims from which all other claims depend therefrom. Claim 4 has been amended to correct punctuation. Note that claims 1, 11, 16, and 19 have been amended. Claims 1, 11, 16, and 19 have not been amended for patentability reasons, but rather to clarify what is meant by the terms "inhibit a resume speed" and "inhibiting resume speed".

Claims 1-20 stand rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Examiner questions how the limitation of inhibiting the resume speed of the vehicle, which is contained within the systems and methods of claims 1-20, is capable of being performed without the limitation of setting the speed of the vehicle. Note that the Applicants provided arguments in response to the section 112 rejection and to the Examiner's questioning in the filed Response to the Office Action, dated August 13, 2003 and in the Appeal Brief of December 16, 2003. The Examiner has not responded to these arguments or provided any additional comments in this regard. These arguments remain, provide sufficient support for the allowance of claims 1-20 with respect to 35 U.S.C. 112, and are restated below in addition to further arguments, which also provide support for the allowance of claims 1-20.

Applicants have submitted that although a limitation is not recited or explicitly stated within a claim, that does not imply that the limitation cannot be also performed in combination with the existing limitations. The limitation of inhibiting a resume speed may correspond with a single set speed, as the Examiner suggests, multiple set speeds, a variable set speed, a speed set by the vehicle operator or by a vehicle controller, or other set speeds known in the art. A set or desired speed may be determined after the acceleration of the vehicle has been inhibited, in which case a set speed would not exist before or be required to inhibit resume speed of the vehicle. For example, the controller of the vehicle

may when inhibiting a resume speed prevent the vehicle from accelerating whether or not a resume speed is set. Another example is provided in paragraph [0032] of the present application, in which a controller holds a constant or present drive speed until the yaw rate of the vehicle is below a predetermined value. Also, a resume speed may be set after resume speed of the vehicle has been inhibited. A vehicle operator may set a resume speed or adjust a set speed after resume speed of the vehicle has been inhibited. Thus, it is not necessary to include the limitation of setting the speed, nor is the stated limitation necessary for the performance of inhibiting a resume speed.

Applicants also submit that the terms "inhibit a resume speed" refer to the preventing of a vehicle from accelerating, as stated in the specification of the present application, such as in paragraph [0011]. Preventing the acceleration of a vehicle is not the same as reducing the speed or changing the speed of a vehicle. When inhibiting the resume speed of a vehicle, the vehicle speed is not necessarily reduced or set and may be maintained. Thus, since it is not necessary to set the speed of a vehicle before inhibiting the resume speed, Applicants submit that claims 1-20 are now in a condition for allowance, at least with respect to 35 U.S.C. 112.

Claims 11 and 19 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Shiraishi et al. (USPN 5,333,058).

Claims 11 and 19 recite a method and system for adaptively controlling the speed of a vehicle. Yaw rate of the vehicle is sensed and in response thereto a yaw rate signal is generated. The resume speed of the vehicle is inhibited by preventing the acceleration of the vehicle in response to the yaw rate signal. The method and system of claims 11 and 19 allow, for example, a vehicle controller to inhibit resume speed of the vehicle when driving on a curved road. In so doing, the controller prevents the host vehicle from accelerating when a target vehicle is no longer detected due to curvature of the road, thereby, preventing a collision between the host vehicle and the target vehicle.

Shiraishi discloses a yaw motion control device that adjusts the yaw rate of a vehicle. The Office Action states that Shiraishi teaches how to reduce the vehicle speed based on the yaw rate, and refers to col. 4, lines 54-63. Applicants, respectfully, submit that in col. 4, lines 54-63, Shiraishi states that on a rough road the wheel speed of a vehicle varies and thus the reliability of yaw rate approximation is diminished when based on ground speed. Accordingly, Shiraishi discloses a yaw rate detecting device that is capable of detecting the yaw rate of a vehicle with high accuracy regardless of vibrations of the vehicle. Clearly, the accurate detection of yaw rate regardless of vehicle vibrations or ground speed is not the same as the inhibiting of resume speed or the preventing of vehicle acceleration in response to a vehicle yaw rate.

Nowhere in Shiraishi is vehicle speed adjusted in response to yaw rate, let alone is acceleration of a vehicle prevented in response to yaw rate. Shiraishi discloses the adjustment of fuel supplied to an engine in response to yaw rate, steering angle, and drive wheel speeds. Shiraishi adjusts the fuel supplied to the vehicle engine to change the speed of the drive wheels of the vehicle. By adjusting the speed of the drive wheels the yaw rate experienced by the vehicle is reduced. The yaw motion control device may increase the speed of a first drive wheel and decrease the speed of a second drive wheel to reduce the yaw rate experienced by the vehicle. The balancing of wheel speed is not the same as the adjusting of vehicle speed. Also, as stated above the adjusting of vehicle speed is not the same as preventing the acceleration of a vehicle.

Referring to MPEP 2143, to establish a *prima facie* case of obviousness the prior art reference must teach or suggest all the claim limitations. Thus, since Shiraishi fails to teach or suggest the inhibiting of resume speed of a vehicle, Shiraishi fails to teach or suggest each and every element of claims 11 and 19. Therefore, claims 11 and 19 are novel, nonobvious, and are in a condition for allowance.

Claims 1-5, 7-10, and 16-18 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Kageyama et al (6,246,932). Note that the arguments provided by the Examiner are identical to those previously provided in the First Office Action of May 13, 2003. Since that time there has been a Response to the First Office Action, a Final Office Action, a Response to the Final Office Action, and an Appeal Brief containing amendments, remarks, and arguments in regards to the stated claims. The Applicants have provided amendments and arguments for the allowance of the stated claims in the Responses and in the Appeal Brief. The Examiner has not responded to the arguments provided in the Appeal Brief. Applicants submit that the amendments and arguments previously provided to allow the stated claims remain, are sufficient for the allowance of the stated claims, and the arguments are restated below in addition to newly presented arguments, which further provide support for the allowance of the stated claims.

Claims 1 and 16 recite a method and system for adaptively controlling the speed of a vehicle. An object is detected and an object profile is generated. A navigation signal is generated by a navigation system. A future path of the vehicle is determined in response to the navigation signal. An in-vehicle controller generates a predicted future path profile in response to the future path and the object profile. Resume speed of the vehicle is inhibited by preventing the acceleration of the vehicle in response to the predicted future path profile.

Kageyama is directed towards a vehicle monitor for controlling the movements of multiple vehicles. Multiple vehicles are controlled from a remotely located monitoring station via communication signals transmitted and received between the monitoring station and the vehicles. Kageyama does not teach or suggest the use of an in-vehicle controller for adaptively controlling speed of a vehicle. In Kageyama, vehicle control signals are transmitted from the monitoring stations to the vehicles.

The Office Actions state that Kageyama teaches detecting a future path of a vehicle and refers to col. 11, lines 11-17. Kageyama does not teach or suggest

detecting a future path of a vehicle, let alone performing the detection via a navigation system. The Final Office Action stated that Kageyama teaches using a planned traveling path and that the planned traveling path is well understood. Applicants agree. However a planned traveling path is clearly different than a detected or predicted future path. The planned traveling path of Kageyama is predetermined by the monitoring station, whereas the future path of claims 1 and 16 are determined and predicted using a navigation system. This is reinforced by the limitation of generating a predicted future path profile. The monitoring station 20 of Kageyama does not detect a future path of the vehicle in response to a navigation signal, such as one generated by a global positioning system, but rather has a planned path that is predetermined. The monitoring station 20 simply directs a vehicle of concern to follow a predetermined path in response to the relative location of other monitored vehicles. The monitoring station 20 at any given moment in time does not determine or predict a future path of a vehicle, the path is already known.

The Final Office Action states that Kageyama teaches the generation of a navigation signal from a navigation system and refers to the reception of position data in col. 3, lines 45-46. Although position data is transmitted and received in Kageyama, Kageyama does not determine a future path in response to a navigation signal, as stated above. Current position data is not the same as determining or predicting future position data.

The Current Office Action states that Kageyama teaches generating a predicted future path profile in response to the future path and the object profile and refers to col. 11, lines 26-30, which also disclose a planned traveling path. Kageyama does not generate a predicted future path profile, but rather follows a predetermined traveling path. The controllers of claims 1 and 16, of the present invention, generate a predicted future path profile in response to a currently detected future path of the vehicle 22 not in response to a predetermined traveling path. Note that the Current Office Action refers to a predetermined

traveling path for both the future path and the predicted future path profile, which as defined by the present invention are not the same.

The Current Office Action further states that Kageyama teaches inhibiting the speed of a vehicle in response to a predicted future path profile. Since Kageyama does not teach or suggest detection of a future path or the generation of a predicted future path profile of a vehicle, Kageyama also does not teach or suggest the inhibition of the resume speed of a vehicle in response thereto.

In addition, the Current Office Action correctly states that Kageyama does not specify resume speed. Kageyama does not mention, set, determine, or inhibit a resume speed of a vehicle nor does Kageyama teach or suggest the use of an in-vehicle controller to inhibit the resume speed of a vehicle. The Final Office Action states that Kageyama has at least one in-vehicle controller that performs this function when it receives the information from the vehicle running ahead, and refers to col. 9, lines 47-51. In col. 9, lines 47-51, Kageyama discloses stopping and reducing speed of a vehicle in response to directive data received from the monitoring station 20. As stated above reducing the speed of vehicle is not the same as preventing the acceleration of a vehicle. The vehicle controller 35 of Kageyama, shown in Figure 3, receives signals from the monitoring station 20 and in response thereto stops or reduces speed of the vehicle. Although the controller 35 may be used in controlling speed of a vehicle, nowhere in col. 9, lines 47-51 or anywhere else in Kageyama is a resume speed, inhibition of a resume speed, prevention of acceleration, or inhibition of a resume speed by an in-vehicle controller mentioned or suggested, and clearly not in response to a predicted future path profile, as described above.

Therefore, applicants respectfully submit that the combinations in claims 1 and 16 are also not found in the prior art.

Applicants therefore submit that each and every limitation of claims 1, 11, 16, and 19 are not taught or suggested by Shiraishi, Kageyama, or a combination thereof and are therefore novel, nonobvious, and allowable. Furthermore, since

claims 2-10, 12-15, 17-18, and 20 depend from claims 1, 11, 16, and 19, respectively, they are also novel, nonobvious, and are in a condition for allowance for at least the same reasons.

In light of the amendments and remarks, Applicants submit that all objections and rejections are now overcome. The Applicants have added no new matter to the application by these amendments. The application is now in condition for allowance and expeditious notice thereof is earnestly solicited. Should the Examiner have any questions or comments, he is respectfully requested to call the undersigned attorney.

Respectfully submitted,

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Dated: March 23, 2004